

M-GOVERNANCE: A KEY TO DEVELOPMENT

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ABSTRACT

Good Governance is the key to achieve the highly aspiring success and happiness to the citizens of any nation. Internet governance, mobile governance, e-governance are the various ways to achieve Good Governance. Mobile governance is not only cheaper but also highly accessible in today's world of inexpensive mobile phones in almost everybody's pocket. Various states of India have started with various programs like Bhoomi Project, Meghdoot, etc to reach every strata of the society in every nook and corner.

KEYWORDS: M-Governance, MNREGA, SMS, E-Governance, People Centered

INTRODUCTION

Achieving good governance is the basic motive of almost every nation. Governments are striving to achieve development at a faster rate. poverty, unemployment, corruption, increasing crime and soaring inflation are no doubt the critical factors which needs immediate attention but that is not all. With the high rate of innovations and emerging technology, it is a challenge not only to adapt the changes but also to work along the benefits keeping a check on the drawbacks every boon accompanied with.

Internet technology is the key to 21st Century growth and progress and is used to refer to the collection of tools and techniques to improve productivity both in public and private sectors. Though the prime motive is to achieve good governance for which e-governance, m-governance, corporate governance, and internet governance are a tool.

The World Bank defines governance as the traditions and institutions by which authority in a country is exercised for the common good. This includes:

- The process by which those in authority are selected, monitored, and replaced,
- The capacity of the government to effectively manage its resources and implement sound policies, and
- The respect of citizens and the state for the institutions that govern economic and social interactions among them. (Carrasco & Pfeifferberger, 2009) (InfoDev/World Bank, 2009. e- Government Primer, Washington, DC; InfoDev/World Bank)

The more mainstreamed the organization and governance of e-Government, the greater the probability of success. In this way "e" applies to engaging 'everyone', and ensuring that all key leaders and managers accept responsibility for the implementation of e-Government, not only the experts in e-Government or the information and technology specialists or project managers.

Governance is decision making and the implementation process through which services are provided to the citizens for the wholesome development. Inclusion of ICT will not only ease the process but also helps in dissemination of information at a fast and reliable rate. ICT also helps in improving transparency and make the officials accountable and responsible for their acts. Further ICT works as a tool to Good Governance and hence holistic development of the nation.

The Web-based e-government in the current phase has been conceived to consist of three sub-phases: (a) Customer Service (1995-2000) (E-commerce inspired) (b) Virtual Agency (2000-2005) (Portal-inspired), and (c) M-government (2005 onwards) (Technology-inspired) (Misra, 2010). E-government is now required to deliver public services on mobile phones, giving birth to m-government.

M-Governance can be defined as a strategy and its implementation involving the utilization of all kinds of wireless and mobile technologies, services, applications and devices. It improves upon the benefits for those involved in e-Governance, including citizens, businesses, and all government units (Noor, Bagga, & Sekhar, 2011)

M-government is of two types: (a) Web-based, and (b) Non-Web. Again it can be classified as a) Voice, and (b) Non-Voice. (Misra, 2010). Web-based is the use of internet or world wide web or other mobile applications to access information through mobile devices whereas non-web based is the use of all the services which don't require internet e.g. making and receiving of call and SMS. Voice, as the name suggests, can be heard by the user and thus is beneficial for the educationally backward section of the society which cannot read. Simputers are devised in similar fashion by Chhattisgarh government for the sarpanchas to access information which is made voice based to make the device user friendly and promote transparency. Similarly MNREGA beneficiaries are provided with the services of voice based smart card readers to curb corruption in payment of wages by the business correspondents. Toll free helpline numbers also comes under voice based m-governance. Non-voice based will include only written information that could be SMS, MMS or other web based services.

M-Governance is as an integral part of e-Governance and in developing countries like India which has very large population of citizens where accessing or having the personal computers and internet usage is comparatively low as compared to mobile phones, m-Governance can help make information dissemination and government services available anytime and anywhere by bringing personalized localized and focalized services closer to citizens and officials. Convenience to carry along and independence of web give m-governance is an advantage over traditional and internet governance.

At the heart of m-government is mobility. (Roggenkamp, 2004) mentions six types of mobility: (i) physical, (ii) social, (iii) virtual, (iv) spatial, (v) temporal, and (vi) contextual mobility. Again, he splits mobility into three categories: (i) device mobility, the continued access to services with a device while moving; (ii) user mobility, apart from the mobility without physical constraints, this refers to location- and device independent service access; and (iii) service mobility, the capability to provide a certain service irrespective of device and user. (Misra, 2010) Adaptive Path, a product experience and strategy design company created a concept called MobilGlyph. Solving the "save a contact" problem for illiterate users became one of the focuses for their project. (Noor, Bagga, & Sekhar, 2011)

As technological innovation are gaining pace in improvising upon the gazettes and applications to make it customer oriented, smooth and ease in accessing, thus making it more popular among the masses and encourage them to adapt the change whole heartedly. 3G, 4G and now the upcoming 5G encourages citizenry to be a part of hi-tech world to get connected through various means.

Social networking has also spreaded its web to the extent that it is affecting election results, deciding the profit margin of companies in the manufacturing and service sectors and decide how much one is updated and aware of the current happenings around the world. It also enhances the participation of non-State agencies in critical democratic governance issues, such as transparency, electoral processes, oversight of governments and public policy making. While many m-Governance efforts are essentially focused in the provision of private services, United Nations Development

Programme (UNDP) interest lies in the improvement in terms of both quality and quantity of public services for those who have little to no access to them.

Sridhar and Sridhar (2004: 20), studying 28 developing countries over a 12-year period 1990 to 2001, show that landlines contribute on average about 1.62 percent to growth of GDP in developing countries, and cell phones contribute positively to national output, on average, 16.2%. A 1% increase in mobile phones penetration increases growth by 6.75%. Their estimates show that a 1 percent increase in tele-density (total telephones per 100 population) increases national output by 0.15 percent without fixed effects and by 0.10 percent with fixed effects. (Misra, 2010) in a more recent report from 2009, an econometric analysis of the Indian telecommunications market shows a close relationship between higher mobile penetration rates and higher economic growth (Vodafone and icrier2009) (Mittal, Gandhi, & Tripathi, 2009). according to the study, Indian states with high mobile penetration are expected to grow faster than those states with lower mobile penetration rates; every ten percent increase in mobile phone subscriptions positively influences economic growth by 1.2 percentage points a year (seward, 2012)

Volpini (2009a) notes: With M-Government Public Administrations have an ideal means to realize their mission: to serve and involve citizens within the Communication – Access – Participation vision. Creating new services, cutting costs, increasing efficiency, fostering a rapid growth of user base – these are the key contributions of mobile communication to re-launch and empower public services. (Misra, 2010)

According to an estimate approximately 50%–60% of government services in India can be delivered via mobile channel (WB 2007). Caroll (2005:85) in her study of Australian mobile phone users has reported that “Unless the services and applications of m-government meet citizens’ needs, they will not achieve long-term, persistent use.” After studying m-government in Beijing, Song (2005:483) goes a step further and suggests that local government should pay attention to the new mobile technologies and their impact on organizations, and face up to the challenges and opportunities it offers to transcend the traditional e-government model, a model which pays undue attention to online Internet portals. (emphasis supplied). (Misra, 2010)

It has already found application in banks (for balance, withdrawal, etc.), schools (for declaration of results), railways (reservation status), airlines (flight status), and traffic police (for overcharging by taxi drivers, non functioning of traffic signals, blowing of street lights during day time etc). Other important areas include bed availability in hospitals, health and educational campaigns (e.g. CBSE) and emergency messages/warning to citizens especially in disaster management. In an innovative step, nine deputy commissioners in the national capital territory of Delhi have also introduced SMS service to know the status of a citizen’s application for 11 types of certificates by sending a SMS at 9868231002 (Kumar 2006:5). (Misra, 2010)

Three types of benefits from mobile phones have been noted: (i) incremental benefits, (ii) transformational benefits, and (iii) manufacturing benefits (Misra, 2010). Web-based m-government can be defined as m-government which can be accessed through the World Wide Web. This has given rise to World Wide Web on the mobile devices known as Mobile Web. The small screen of the mobile devices poses enormous challenges to engineers to put more and more matter in limited space. Apart from the small screen of the mobile devices, there are issues of interoperability, usability and operation which need to be and are currently being sorted out. Short Message Service (SMS) occupies the central place in non-Web m-government. The extra-ordinary popularity of SMS in India is due to its low cost (Rs 1/- for local and Rs 2/- for national SMS earlier, 50 to 100 times costlier than what it cost to service providers; now 1 paisa per SMS since November 2009) and the timeliness of the message. Private sector has found profit in it if large volume could be obtained.

One of the first and most well-known platforms for collecting and mapping inputs from citizens is Ushahidi — an open source platform first developed in Kenya to report eyewitness accounts of post-election violence and human rights abuses following the disputed 2007 elections its design — requiring only a basic mobile phone with SMS capacity — has allowed it to be widely adopted in other monitoring systems like mapping community needs in Chisinau (Moldova), plant disease tracking in Argentina, and corruption tracking in Egypt. It has also been adopted in south Africa to track reports of xenophobia, in India where it was used to run a citizen-driven election monitoring platform, Vote Report India, and in Mexico where it was used to monitor elections. (seward, 2012)

The power of the SMS can be gauged from the fact that “The President of the Philippines was deposed in 2001 in an SMS-organized mobilization he called a “coup de text” when just 15% of Filipinos had mobile phones (Res Publica 2007:4). Incidentally, Philippines have been called as the “text messaging capital of the world.”

A mobile based application MOTHER (Mobile based maternal Health Awareness) developed by Centre for Development of Advanced Computing (C-DAC), Hyderabad has awarded with the public choice award in the e-India 2012 conference being held at HICC, Hyderabad. The application ‘MOTHER’ is a scheduler sending customized alerts on maternal and child health related information directly to the mobile phones of the pregnant and lactating women, as voice calls in Telugu.

Registered beneficiaries receive customized, presently 49 pre-recorded advices, specific to their health condition, i.e., what type of care to be taken in case of high risks during pregnancy, immunization remainders, child care, nutrition related and general information related to health services offered by Government. This pilot project is being implemented in Srikakulam District of Andhra Pradesh with the support of Andhra Pradesh unit of ‘National Rural Health Mission’. (cdac.in, 2012) (Government of India, 2012)

Transformation of citizenry from e-citizenship to m-citizenship can be seen in rural and urban India through the following services which are currently in use (Government of India, 2009)

Table 1: Mobile Based Services

Service Provider	Services Offered	How to Use
Jansankhya Sthirata Kosh	Advice on Reproductive Health, Family planning and Infant health in English and Hindi	Call on - 011 66665555
Indian Meteorological Department	Weather Information	Call on: 1800 180 1717
Government of Madhya Pradesh	To get information on government run schemes and complaint registration	Call on: 155343
Kisan Call Centre	Agriculture related queries solution	Call on - 1551
Department of Agriculture, Govt of Madhya Pradesh	Agriculture, Horticulture, Dairy, Fishery and Animal Husbandry related queries solution of farmers	Call on- 18002334433
Department of Agriculture, Govt of Haryana	Agriculture related problems of farmers	Send SMS on- 9915862026
Ministry of Rural Development, Govt. of India	Complaint and information related to National Rural Employment Guarantee Scheme (NREGS)	Call on- 1800110707
Govt of Haryana	Complaints or information about NREGS	Call on - 18001802023
CBI, Himachal Pradesh	Complaint against corrupt official	Call on- 09418153535 or Send SMS on- 09418153535 with details of corrupt official
CBI, Andhra Pradesh	Complaint against employees of Central Government, Nationalized bank and Public Sector Undertakings (PSU) for demanding bribe	Call on: 040 24732768 (Hyderabad) 0891 2783333 (Visakhapatnam/Vizag)
Social Welfare and Labor department, Govt. of NCT Delhi	Rescue the child beggars	Call on- 1098
Indian Railway	Complaints of bribery/corruption against railway men	Call on toll free no- 155210

Table 1: Contd.,

Indian Railway	PNR status enquiry, Current Train Running Position, Accommodation Availability and Fare Enquiry	Call on- 139 and enter your 10 digit PNR no. or 4 digit train number
Indian Railway	PNR status enquiry and running train status	Call on 9773300000
Jaankari Govt of Bihar	RTI complaint, 1st and 2nd appeal and information on RTI	Call on- 155311 register complain, 1st and 2nd appeal Call on- 155310 to know the application status and other enquiry
Central Board of Secondary Examination (CBSE)	Class 10th and 12th examination related queries of physically challenged children's	Students from Delhi , call to Shweta Khanna on- 9717882074
		Students from Mumbai , call to Abha Sharma on- 9967800337
		Students from Mumbai , call to Mr Shipley on- 9833950896
		Students from Mumbai , call to Hetal Sayla on- 9819209623
Central Board of Secondary Education (CBSE)	Exam result of class 10th and 12th	Call on- 011 24357270
State's Pre-University Department, Government of Karnataka	Exam related counseling support for class 12th students/parents of the students	Call on- 080-23366778 or 080 23366779 (03 pm to 4.30 pm)
Railway Recruitment Board, Chennai	Status of application, eligibility for advertised post and examination result	Send SMS on 6161
Emergency Management Research Institute (EMRI), Hyderabad	Medical support to patients	Call on- 108
Health Department	Ambulance and health support to patients	Call on 102 or 1099
Supreme Court of India	Litigants and advocates can find out the status of their cases pending in Supreme Court on telephone	Call on- 011-4362062 & 011 4360112
Delhi Legal Services Authority	Legal advice and help	Call on- 12525 (Toll free number) Call on- 23070345 & 23073132
Kerala State Legal Services Authority	Legal advice and help	Call on- 9846 700 100
Brihat Mumbai Municipal Corporation (BMC)	Lodge complaints related to solid waste management, drainage, storm water drain, roads & traffic, factories, license issues, water supply, pest control, buildings, encroachment, etc.	Call on-1916
Brihat Mumbai Municipal Corporation (BMC)	Payment of Property Tax and Water dues up to Rs 20 thousand	Send SMS on- 57575 It can be paid through State Bank of India ITZ Cash card. The card will generate a 16- digit number. Citizens will require sending an SMS on: 57575 mentioning the bill number. This SMS will reach to BMC's IT control room, following which an SMS will be sent back mentioning the pending bill amount. The user will be then required to send a second SMS with the 16-digit transaction number of the SBI ITZ card and the amount for which the payment is being made.
Kozhicode District, Kerala "Dr SMS"	Information on nearest healthcare facility anytime of the day, nearest hospital's whereabouts returns. The system gives pointers to blood banks, diagnostic centers, private hospitals, specialty centers, facilities for surgery and ventilators and the list of specialist doctors in the district	Send SMS on- 9446460600 with full address details
Gurgaon Police, Government of Haryana	Police help in case of distress and danger	Send SMS on- 9717595423
Jansankhya Sthirata Kosh	Advice on Reproductive Health, Family planning and Infant health in English and Hindi	Call- 011 66665555
Indian Meteorological Department	Know weather Information of your city	Call on: 1800 180 1717
Government of Madhya Pradesh	To get information on government run schemes and complaint registration	Call on: 155343

Source: (Government of India, 2009)

This information is provided in 10 languages including Hindi and English. To facilitate the deployment of m-Governance services reach to the citizens, the following challenges are identified which acts as a barrier in the process at any of the stages from entry level to the evaluation and feedback level:

- Lack of policy initiatives to secure privacy & security, and promote m-governance.
- High cost to provide initial setup
- Presentable format
- Large gaps in wireless network coverage
- No or limited access in remote areas
- Lack of basic Infrastructure.
- Low levels of literacy
- Lack of knowledge of English language
- Technical handicap
- Not enough facilities in mobile devices for m-Governance.
- To develop application in each of local languages
- Trust/security
- Data overload
- Cost of mobile services i.e. call rates SMS & internet charges
- Resistance to change
- Gender inequality

It is found that the vast potential of m-government continues to be unrealized. A systematic approach, currently lacking, is required to promote m-government as an integral part of e-government so that its benefits accrue to all concerned. To promote the use of m-governance following steps could be followed to make m-governance as a practical tool to reap the benefits of various services at the grassroots level.

- Promote m-governance on priority basis
- Design of applications should be attractive and promotional
- Smooth and easy to understand pattern of usability of services
- Promotional and awareness campaigns should be launched.
- PPP and citizen's participation
- Encourage local developers, beneficiaries and local government
- Manage interoperability and compatibility issues
- Follow step by step procedure to achieve the desired goals

- Sustainable development i.e. environmental issues should be taken care of .e.g. impact of radiations on birds and other living beings nearby network towers and to the mobile users.
- Set up a national mobile portal: Canada has already taken initiative in setting up a mobile portal at <http://www.wap.gc.ca/mobile/wireless-eng.html>. Services currently offered include border wait times, Canada business service centers contact information, Canadian company capabilities, currency converter, economic indicators, exchange rates, government of Canada employee phone numbers, government of Canada news releases, media advisories, background news, and more, member of parliament contact information, passport offices, national parks, 1 800 O-Canada international toll-free numbers, and weather. India too needs to set up a national mobile portal. If for any reason this is not possible, a sub-portal for m-government in national portal of India (<http://india.gov.in/>) should be set up (Misra, 2010)
- Adopt “spoken web” and set up pilot “voice sites”.
- Promote m-governance by implementing current schemes at the grassroots level via mobile services. e.g. wage payment of MNREGA, giving away of grants to girls under “kanya vidhya dhan” yojana, promoting free and compulsory education under right to education, etc.

Today “Mobile Phone” has not been limited as communication tool to send and get text and voice messages. It has emerged as a strongest technology to bridge digital divide between urban haves and rural have not. Within two decades of its launch in India, mobile phone has reached at remote rural hamlet despite the much known hurdles like lack of connectivity and electricity and low level of literacy. In the other side, it has created lakh of direct and indirect job opportunities for youths.

In the second phase of the development, it has emerged as a delivery channel for different kind of services and now anyone can transfer amount from one bank account to another using their mobile phone. Government and private agencies have also started using “Mobile Phone” to deliver citizen and business services to common man. Recently, Reserve Bank of India has allowed commercial banks to provide banking services on mobile phone, whereas Government of India has approved the “Framework for delivering financial services through mobile phone” developed by Inter-ministerial group. After the launch of 3G technologies in India users are enabled to access health, educational, agricultural, infotainment services on their mobile phone. technology is beyond doubts changing at very fast rate i.e. new handsets, 4G network and what not. Face of mobile technology has changed from making and receiving calls and SMS to taking pictures, use of daily innovating applications ,browsing , use of MS-Office ,sending and receiving e-mails, composing music ,synchronizing with PCs using Bluetooth and other wireless networks. In a nutshell, mobiles are now palmtops which can do almost every function which a desktop or laptop can do .it is up to us as how it can be best utilized to the utmost capacity by everybody taking all the handicaps into consideration. Mobiles will soon prove it as the best source for the multi pronged approach towards development of every strata of the society to the remotest nook and corner.

Since 63.2% of Indian population is having and using telephones(census 2011) which could be considered as of a great potential to use mobile governance to serve the disadvantaged and deprived sections of the society which needs a serious concern. Direct cash transfer scheme, e-aadhar card, smart cards, etc for various schemes are various steps taken by the government on pilot or full scale implementation but still various lacunas are found at various stages. Mobile governance should be introduced along with the various innovative projects to ensure the availability of service to the actual user and promote transparency, accountability and customer satisfaction. m-governance is no doubt a very novice concept but can be proved a panacea for all the ills of governance. Mobile governance has the potential of fulfilling the

characteristics of good governance i.e. People-centered, holistic, inclusive, shared visions, accountability, openness, performance focused, continuous learning, ethics and values and partnering & leadership; as it is just a dial away from the actual user and no intermediary is required. Making it free of cost and mobile applications more users friendly will certainly increase its popularity and usefulness. No doubt advertising and training of actual usability is the extra cost to be borne by the government which could further be lowered down by introducing PPP and third sector participation i.e. MeNGO (m-governance enabling NGO) along with voluntary services by various educational institutions. Radio, Television, Newspapers, celebrity messages, graphical/pictorial depiction in government offices and public places will help the spreading of word to the masses.

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